

Problem-solving Models

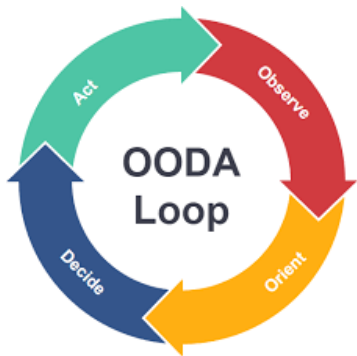
Moving from data to action requires partner engagement and commitment to developing a shared understanding of the local-level overdose crisis, identifying obstacles and challenges, and strategizing and implementing solutions. This problem-solving process can be distilled into four key steps:

1. Making sense of the data to understand local needs (What do we know?)
2. Determining priorities to address gaps and needs (What should we do?)
3. Design, adapt, and implement an intervention (Act quickly)
4. Monitor progress and outcomes (If it works do more of it; if not, make improvements)

These four steps are embedded in many problem-solving models some PHAST partners may already be familiar with. Therefore, a PHAST may find it helpful to describe the problem-solving process using these existing models or processes. Here, we describe three examples.

OODA Loop

The **OODA Loop** is an iterative 4-step model to aid decision-making that stands for “Observe, Orient, Decide, and Act.” It was originally developed as a strategy among fighter pilots to make quick, rational decisions based on observations, allowing for rapid adjustments and adaptations. It is most commonly used by the military and law enforcement.



- **Observe** – Collect data and consider new sources of information. What are the gaps in the system? What does it mean? Is this part of a larger pattern?
- **Orient** – Analyze, evaluate, and prioritize the information. What conclusions can you draw? How are you approaching the information? Is there a different way of looking at the information?
- **Decide** – Determine what is the most appropriate response based on the information you have. What intervention might address this gap? What is your hypothesis?
- **Act** – Implement your intervention. Test your hypothesis. Was it correct?

Once the first loop is complete, you gather observations to understand the impact and consequences of your intervention and the cycle restarts.

PDSA Cycle

Plan, Do, Study, Act or PDSA is an iterative 4-step model for rapid process improvement and testing change originally developed to drive improvement in business and manufacturing. Its use has since expanded to include a variety of sectors, including public health.

- **Plan** – What problem are you trying to solve? What solution do you want to test? What do you expect to happen? What data are you going to collect? How will you know if it’s working?
- **Do** – Implement the intervention; collect data.
- **Study** – Analyze data. What did you learn? Was it successful? How do you know?
- **Act** – Make adjustments. If it works, do more of it; if it didn’t work, do something differently.



The decision made in the “act” phase determines the next planning phase. If the intervention works, you may re-examine its impact over time while also identifying additional improvements that can be made. If the intervention was unsuccessful, you may choose to develop a different plan to reach your desired outcome. In both scenarios, the cycle continues.



SARA Model

The SARA model grew out of problem-oriented policing and is a common problem-solving strategy that forms the basis of many police training programs.

- **Scanning** – Identify and prioritize problems that need to be addressed. Determine scope of the problem.
- **Analysis** – Develop an understanding of the problem, its root causes and factors that lead to it. Identify any additional data that is still needed.
- **Response** – Select and implement an intervention to address the identified problem.
- **Assessment** – Collect and analyze data to determine if the intervention was successful.

Similar to the OODA Loop and the PDSA Cycle, information collected in the Assessment phase can be used to inform the next Scanning phase leading to a decision to change the response, improve data analysis, or redefine the problem.